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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,185	12/03/2003	Jerrold V. Hauck	APPLE.016A	7289
65201 7590 01/10/2008 GAZDZINSKI & ASSOCIATES, P.C. 11440 WEST BERNARDO COURT SUITE 375 SAN DIEGO, CA 92127			EXAMINER CEHIC, KENAN	
			ART UNIT 2616	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/728,185

Applicant(s)

HAUCK ET AL.

Examiner

Kenan Cehic

Art Unit

~~2609~~ 2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7, 18-23, 26, 27, 30-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 18-23, 26, 27 and 30-49 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/ are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 07/09/2004.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

DETAILED ACTION

1. The indicated allowability of claim 1-7, 18-22 is withdrawn in view of the newly discovered reference(s) to Duckwall (US 6,266,334) in view of Duckwall (US 5,495,481).

Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 27, 30 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

For claims 27, 30, the claim limitation "the device containing instructions which ,when executed by a computer" in claims 27-30 lines 1-2 (there was no structure of the device disclosed), is not a process, machine, manufacture, or composition of matter, or any new and useful improvement thereof because there is no physical structure/connection of medium recited in the claims. To overcome this rejection, it is suggested to change "A device containing instructions which ,when executed by a computer" to - - device containing a computer readable medium encoded with computer executable instructions - -.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claim 1,23,27,31,43,18,26,30,38,49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duckwall (US 6,266,334) in view of Duckwall (US 5,495,481)

For claim 1, 23, Duckwall discloses a method for administering (see col 3 lines 25-30 “method”) a serial bus (see col 1 lines 258-40 “serial bus” and col 4 lines 60-65 “serial bus” and col 3 lines 35-45 serial network), the bus facilitating communication (see col 7 lines 55-65 “packet communication”) between node devices (see fig 1;12-26) connected to the bus (see col 1 lines 258-40 “serial bus” and col 4 lines 60-65 “serial bus” and col 3 lines 35-45 serial network) and communicating (see col 1 lines 258-40 “serial bus” and col 4 lines 60-65 “serial bus” and col 3 lines 35-45 serial network) over the bus in the form of packetized communication (see col 7 lines 55-65 “packet communication” and abstract “packet communication system”) between said node devices (see fig 1;12-26),

if there is a packet of the second type to be sent (see fig 4, 96, yes), then concatenating the packet of the second type (see fig 4, 106 , “concatenated data packet”) to a packet of the first type (see fig. 4; 106 “ack packet”) and sending the packet of the first type (see fig 4, 106 , “concatenated data packet” and col 5 lines 45-60 “each node on the network” and col 2 lines 14-25 “allow a node to concatenate and unrelated packet”) followed by the concatenated packet of the second type (see fig 4, ;106, ack packet) ;

and if there is no packet of the second type to be sent (see fig. 4; 96, no), then concatenating a bogus ack packet (see fig 4, 98, 100) to the packet of the first type (see fig 4, 100, 116, concatenated data packet, concatenated local data packet) and sending the packet of the first type (see fig 4, 100, 116) followed by the concatenated bogus ack packet (see fig 4, 116, 98).

For claim 23 and 26, Duckwall discloses computer readable medium (see col 1 lines 35-45 “computer system”) containing instructions (see col 1 lines 35-45 “computer system”) which, when executed by a computer (see col 1 lines 35-45 “computer system”)

For claim 27, Duckwall discloses a node device (see fig 1; 12) connected to a serial bus (see col 1 lines 258-40 “serial bus” and col 4 lines 60-65 “serial bus” and col 3 lines 35-45 serial network), the node device (see fig 1; 12) containing instructions (see col 1 lines 35-45 “computer system”) which, when executed by a computer (see col 1 lines 35-45 “computer system”), administer (see col 3 lines 25-30 “method”) a serial bus (see col 1 lines 258-40 “serial bus” and col 4 lines 60-65 “serial

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bus” and col 3 lines 35-45 serial network) that facilitates communication (see col 7 lines 55-65 “packet communication”) between said node device (see fig 1; 12) and a plurality of node devices (see fig 1;12-26) connected to the bus (see col 1 lines 258-40 “serial bus” and col 4 lines 60-65 “serial bus” and col 3 lines 35-45 serial network) and communicating (see col 1 lines 258-40 “serial bus” and col 4 lines 60-65 “serial bus” and col 3 lines 35-45 serial network) over the bus in the form of packetized communication (see col 7 lines 55-65 “packet communication” and abstract “packet communication system”) between said node device (see fig 1;12-26) and said plurality of node devices (see fig 1;12-26) if there is a packet of the second type to be sent (see fig 4, 96, yes), then concatenating the packet of the second type (see fig 4, 106 , “concatenated data packet”) to a packet of the first type (see fig. 4; 106 “ack packet”) and sending the packet of the first type (see fig 4, 106 , “concatenated data packet” and col 5 lines 45-60 “each node on the network” and col 2 lines 14-25 “allow a node to concatenate and unrelated packet”) followed by the concatenated packet of the second type (see fig 4, ;106, ack packet) ;

and if there is no packet of the second type to be sent (see fig. 4; 96, no), then concatenating a bogus ack packet (see fig 4, 98, 100) to the packet of the first type (see fig 4, 100, 116, concatenated data packet, concatenated local data packet) and sending the packet of the first type (see fig 4, 100, 116) followed by the concatenated bogus ack packet (see fig 4, 116, 98).

For claim 31, Duckwall discloses a method (see col 3 lines 25-30 “method”) for administering (see col 3 lines 25-30 “method”) a data bus (see col 1 lines 258-40 “serial bus” and col 4 lines 60-65 “serial bus” and col 3 lines 35-45 serial network), the bus (see col 1 lines 258-40 “serial bus” and col 4 lines 60-65 “serial bus” and col 3 lines 35-45 serial network) facilitating communication (see col 7 lines 55-65 “packet communication”) between node devices (see fig 1;12-26) communicating over the bus (see col 7 lines 55-65 “packet communication”) the method comprising if there is a packet of the second type to be sent (see fig 4, 96, yes), then concatenating the packet of the second type (see fig 4, 106 , “concatenated data packet”) to a packet of the first type (see fig. 4; 106 “ack packet”) and sending the packet of the first type (see fig 4, 106 , “concatenated data packet” and col 5 lines 45-60 “each node on the network” and col 2 lines 14-25 “allow a node to concatenate and unrelated packet”) followed by the concatenated packet of the second type (see fig 4, ;106, ack packet) ; and if there is no packet of the second type to be sent (see fig. 4; 96, no), then concatenating a false acknowledgement packet (see fig 4, 98, 100) to the packet of the first type (see fig 4, 100, 116, concatenated data packet, concatenated local data packet) and sending the packet of the first type (see fig 4, 100, 116) followed by the concatenated false acknowledgement packet (see fig 4, 116, 98).

For claim 43, Duckwall discloses a node device (see fig 1; 12) adapted to (see col 3 lines 25-30 “method”) administer (see col 3 lines 25-30 “method”) a data bus (see col 1 lines

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258-40 “serial bus” and col 4 lines 60-65 “serial bus” and col 3 lines 35-45 serial network), the bus (see col 1 lines 258-40 “serial bus” and col 4 lines 60-65 “serial bus” and col 3 lines 35-45 serial network) facilitating communication (see col 7 lines 55-65 “packet communication”)

between said node (see fig 1; 12) and another device (see fig 1;12-26) communicating over the bus (see col 7 lines 55-65 “packet communication”) the method comprising if there is a packet of the second type to be sent (see fig 4, 96, yes), then concatenating the packet of the second type (see fig 4, 106 , “concatenated data packet”) to a packet of the first type (see fig. 4; 106 “ack packet”) and sending the packet of the first type (see fig 4, 106 , “concatenated data packet” and col 5 lines 45-60 “each node on the network” and col 2 lines 14-25 “allow a node to concatenate and unrelated packet”) followed by the concatenated packet of the second type (see fig 4, ;106, ack packet) ;

and if there is no packet of the second type to be sent (see fig. 4; 96, no), then concatenating a false acknowledgement packet (see fig 4, 98, 100) to the packet of the first type (see fig 4, 100, 116, concatenated data packet, concatenated local data packet) and sending the packet of the first type (see fig 4, 100, 116) followed by the concatenated false acknowledgement packet (see fig 4, 116, 98).

For claim 18, 23, Duckwall discloses a method for administering (see col 3 lines 25-30 “method”) a serial bus (see col 1 lines 258-40 “serial bus” and col 4 lines 60-65 “serial bus” and col 3 lines 35-45 serial network), the bus facilitating

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communication (see col 7 lines 55-65 “packet communication”) between node devices (see fig 1;12-26) connected to the bus (see col 1 lines 258-40 “serial bus” and col 4 lines 60-65 “serial bus” and col 3 lines 35-45 serial network) and communicating (see col 1 lines 258-40 “serial bus” and col 4 lines 60-65 “serial bus” and col 3 lines 35-45 serial network) over the bus in the form of packetized communication (see col 7 lines 55-65 “packet communication” and abstract “packet communication system”) between said node devices (see fig 1;12-26),, the method comprising:

receiving a packet of the first type (see fig 4, 100 and see col 2 lines 20-38 “passing upward....bound acknowledge packet”);

determining that there are no packets (see fig 4, 96, data) of the second type to be sent (see fig. 4; 96, no);

if fly-by concatenation is permitted (see fig 4, 110, 116) then concatenating a packet (see fig 4, 116) to the received packet (see fig 4, 100) and sending the received packet and the packet (see fig 4, 116); and

if fly-by concatenation is not permitted (see col 2 lines 25-35 “wanted to concatenatewould be prevented from doing so”) then sending the received packet (see col 2 lines 25-45 “passing upward....bound acknowledge packet”), arbitrating for the bus (see col 25-35 “required for normal arbitration” and col 2 lines 43-50 “nodes to begin bus arbitration as soon as a acknowledge),

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For claim 30, Duckwall discloses a node device (see fig 1; 12) connected to a serial bus (see col 1 lines 258-40 "serial bus" and col 4 lines 60-65 "serial bus" and col 3 lines 35-45 serial network), the node device (see fig 1; 12) containing instructions (see col 1 lines 35-45 "computer system") which, when executed by a computer (see col 1 lines 35-45 "computer system"), administer (see col 3 lines 25-30 "method") a serial bus (see col 1 lines 258-40 "serial bus" and col 4 lines 60-65 "serial bus" and col 3 lines 35-45 serial network) that facilitates communication (see col 7 lines 55-65 "packet communication") between said node device (see fig 1; 12) and a plurality of node devices (see fig 1;12-26) connected to the bus (see col 1 lines 258-40 "serial bus" and col 4 lines 60-65 "serial bus" and col 3 lines 35-45 serial network) and communicating (see col 1 lines 258-40 "serial bus" and col 4 lines 60-65 "serial bus" and col 3 lines 35-45 serial network) over the bus in the form of packetized communication (see col 7 lines 55-65 "packet communication" and abstract "packet communication system") between said node device (see fig 1;12-26) and said plurality of node devices (see fig 1;12-26) receiving a packet of the first type (see fig 4, 100 and see col 2 lines 20-38 "passing upward....bound acknowledge packet");

determining that there are no packets (see fig 4, 96, data) of the second type to be sent (see fig. 4; 96, no);

if fly-by concatenation is permitted (see fig 4, 110, 116) then concatenating a packet (see fig 4, 116) to the received packet (see fig 4, 100) and sending the received packet and the packet (see fig 4, 116); and

if fly-by concatenation is not permitted (see col 2 lines 25-35 “wanted to concatenatewould be prevented from doing so”) then sending the received packet (see col 2 lines 25-45 “passing upward....bound acknowledge packet”), arbitrating for the bus (see col 25-35 “required for normal arbitration” and col 2 lines 43-50 “nodes to begin bus arbitration as soon as a acknowledge),

For claim 38, Duckwall discloses a method for administering (see col 3 lines 25-30 “method”) a serial bus (see col 1 lines 258-40 “serial bus” and col 4 lines 60-65 “serial bus” and col 3 lines 35-45 serial network), the bus facilitating communication (see col 7 lines 55-65 “packet communication”) between node devices (see fig 1;12-26) connected to the bus (see col 1 lines 258-40 “serial bus” and col 4 lines 60-65 “serial bus” and col 3 lines 35-45 serial network) and communicating (see col 1 lines 258-40 “serial bus” and col 4 lines 60-65 “serial bus” and col 3 lines 35-45 serial network) over the bus in the form of packetized communication (see col 7 lines 55-65 “packet communication” and abstract “packet communication system”) between said node devices (see fig 1;12-26),, the method comprising:

receiving a packet of the first type (see fig 4, 100 and see col 2 lines 20-38 “passing upward....bound acknowledge packet”);

determining that there are no packets (see fig 4, 96, data) of the second type to be sent (see fig. 4; 96, no);

if concatenation is permitted (see fig 4, 110, 116) then concatenating a packet (see fig 4, 116) to the received packet (see fig 4, 100) and sending the received packet and the

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packet (see fig 4, 116); and

if concatenation is not permitted (see col 2 lines 25-35 “wanted to concatenatewould be prevented from doing so”) then sending the received packet (see col 2 lines 25-45 “passing upward....bound acknowledge packet”), arbitrating for the bus (see col 25-35 “required for normal arbitration” and col 2 lines 43-50 “nodes to begin bus arbitration as soon as a acknowledge),

For claim 49, Duckwall discloses a node device (see fig 1; 12) adapted to (see col 3 lines 25-30 “method”) administer (see col 3 lines 25-30 “method”) a data bus (see col 1 lines 258-40 “serial bus” and col 4 lines 60-65 “serial bus” and col 3 lines 35-45 serial network), the bus (see col 1 lines 258-40 “serial bus” and col 4 lines 60-65 “serial bus” and col 3 lines 35-45 serial network) facilitating communication (see col 7 lines 55-65 “packet communication”)

between said node (see fig 1; 12) and another device (see fig 1;12-26) communicating over the bus (see col 7 lines 55-65 “packet communication”)

receiving a packet of the first type (see fig 4, 100 and see col 2 lines 20-38 “passing upward....bound acknowledge packet”);

determining that there are no packets (see fig 4, 96, data) of the second type to be sent (see fig. 4; 96, no);

if concatenation is permitted (see fig 4, 110, 116) then concatenating a packet (see fig 4, 116) to the received packet (see fig 4, 100) and sending the received packet and the packet (see fig 4, 116); and

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if concatenation is not permitted (see col 2 lines 25-35 “wanted to concatenatewould be prevented from doing so”) then sending the received packet (see col 2 lines 25-45 “passing upward....bound acknowledge packet”), arbitrating for the bus (see col 25-35 “required for normal arbitration” and col 2 lines 43-50 “nodes to begin bus arbitration as soon as a acknowledge),

Duckwall is silent about:

For claim 1, 23, 27, 31,43 wherein a first type of packet comprises asynchronous packets characterized by the absence of a requirement that an unarbitrated response or ack packet be sent in response to transmission of a packet of the first type, wherein a second type of packet comprises asynchronous packets, concatenating to a *plurality* of packets of the first type and sending the plurality of packets of the first type;

For claim 31,43, using at least a first type and second type of asynchronous packet, the first type of packet not requiring that an acknowledgement packet be sent in response to transmission of such first type of packet

For claim 18, 26, 30 wherein a first type of packet comprises asynchronous packets characterized by the absence of a requirement that an unarbitrated response or ack packet be sent in response to transmission of a packet of the first type, wherein a second type of packet comprises asynchronous packets, concatenating a bogus ack packet to the received packet; sending a bogus ack packet

For claim 38,49 wherein a first type of packet comprises asynchronous packets characterized by the absence of a requirement that a response packet be sent in response to transmission of a packet of the first type, wherein a second type of packet comprises asynchronous packets, concatenating a false response packet to the received packet
'sending a false response packet

Duckwall from the same or similar field of endeavor discloses a communication method with the following features:

For claim 1, 23, 27, 31,43, Duckwall wherein a first type of packet (see col 3 lines 45-60 "acknowledge packets") comprises asynchronous packets (see col 4 lines 28-40 "asynchronous" and fig 1c, ACK) characterized by the absence of a requirement that ack packet be sent in response to transmission (see col 3 lines 45-60 "acknowledge packets are never themselves "acknowledged" by a second acknowledge packet") of a packet of the first type (see col 3 lines 45-60 "acknowledge packets"), wherein a second type of packet (see fig 1c, "data transfer") comprises asynchronous packets (see col 4 lines 28-40 "asynchronous" and fig 1c, data transfer), concatenating to a *plurality* of packets of the first type (see fig 1c, ACK) and sending (see col2 lines 50- col 3 line 25 "transmit") the plurality of packets of the first type (see fig 1c, ACK);

For claim 31,43 Duckwall discloses using at least a first type (see col 3 lines 45-60 "acknowledge packets") and second type (see fig 1c, "data transfer") of asynchronous

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packet (see col 4 lines 28-40 “asynchronous”), the first type of packet see col 3 lines 45-60 “acknowledge packets”) not requiring that an acknowledgement packet be sent in response to transmission of such first type of packet (see col 3 lines 45-60 “acknowledge packets are never themselves “acknowledged” by a second acknowledge packet”).

For claim 18, 26,30 Duckwall discloses wherein a first type of packet (see col 3 lines 45-60 “acknowledge packets”) comprises asynchronous packets (see col 4 lines 28-40 “asynchronous” and fig 1c, ACK) characterized by the absence of a requirement that ack packet be sent in response to transmission (see col 3 lines 45-60 “acknowledge packets are never themselves “acknowledged” by a second acknowledge packet”) of a packet of the first type (see col 3 lines 45-60 “acknowledge packets”), wherein a second type of packet (see fig 1c, “data transfer”) comprises asynchronous packets (see col 4 lines 28-40 “asynchronous” and fig 1c, data transfer), concatenating a bogus ack packet (see fig 1c, ACK (1d)) to the received packet (see fig 1c, ack (1c)); sending a bogus ack packet (see fig 1, arbitration, ack)

For claim 38,49 Duckwall discloses wherein a first type of packet (see col 3 lines 45-60 “acknowledge packets”) comprises asynchronous packets (see col 4 lines 28-40 “asynchronous” and fig 1c, ACK) characterized by the absence of a requirement that a response packet be sent in response to transmission (see col 3 lines 45-60 “acknowledge packets are never themselves “acknowledged” by a second acknowledge packet”) of a

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packet of the first type (see col 3 lines 45-60 “acknowledge packets”), wherein a second type of packet (see fig 1c, “data transfer”) comprises asynchronous packets (see col 4 lines 28-40 “asynchronous” and fig 1c, data transfer), concatenating a false response packet (see fig 1c, ACK (1d)) to the received packet (see fig 1c, ack (1c)); sending a false response packet (see fig 1, arbitration, ack)

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Duckwall by using the features, as taught by Duckwall, in order to accord with P1394 serial bus standard (see col 1-2)

4. Claim 2, 3, 32, 33, 44, 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duckwall (US 6,266,334) in view of Duckwall (US 5,495,481) as applied to claims 1/31/43 above, and further in view of Duckwall (US 5,802,057).

For claim 2, Duckwall discloses the claimed invention as described in paragraph 3.

Furthermore, for claim 2, 32, 44 Duckwall discloses packet of the second type (see fig 1c, “data transfer”)

Furthermore, for claim 3, Duckwall discloses the bogus ack packet (see fig 4, 116, 98).

Furthermore, for claim 33, 45 Duckwall discloses the false acknowledgement packet (see fig 4, 116, 98).

Duckwall is silent about:

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For claim 2,3, 32, 33, wherein concatenating the packet is performed by link hardware.

For claim 44. and 45 comprising link hardware adapted to concatenate the packet .

Duckwall from the same or similar field of endeavor discloses a communication network with the following features:

For claim 2,3, 32,33, Duckwall discloses wherein concatenating the packet (see col 8 lines 30-37 “ack-concatenation”) is performed by link hardware (see col 8 lines 30-37 “link hardware”).

For claim 44 and 45, Duckwall discloses comprising link hardware see col 8 lines 30-37 “link hardware”) adapted to concatenate the packet (see col 8 lines 30-37 “ack-concatenation”).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Duckwall and Duckwall by using the features, as taught by Duckwall, in order to minimize arbitration delays (see col 3).

5. Claim 4,5, 19, 34, 35, 39, 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duckwall (US 6,266,334) in view of Duckwall (US 5,495,481) as applied to claim 1/18/31 above, and further in view of Duckwall (US 20040246959).

For claim 4 and 5, Duckwall, Duckwall, discloses the claimed invention as described in paragraph 3.

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Furthermore, for claim 4, 19 Duckwall discloses the bogus ack packet (see fig 4, 116, 98).

Furthermore, for claim 34, 46, Duckwall discloses the false acknowledgement packet (see fig 4, 116, 98).

Furthermore, for claim 39, Duckwall discloses the false response packet (see fig 4, 116, 98).

Duckwall, Duckwall and Hauck are silent about:

For claim 4, 19, 34, 39, 46 wherein concatenating the packet is performed by PHY hardware.

For claim 5, 35 wherein link hardware is unaware that the PHY hardware performs concatenation.

Duckwall from the same or similar field of endeavor discloses a communication network with the following features:

For claim 4, 19, 34, 39, 46 Duckwall discloses wherein concatenating the packet is performed by PHY hardware (see section 0074 “concatenation in the phy”).

For claim 5, 35 Duckwall discloses wherein link hardware is unaware (see section 0066 “is hidden from the link layer”) that the PHY hardware performs concatenation (see section 0074 “concatenation in the phy”).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Duckwall, Duckwall by using the features, as taught by Duckwall, in order to minimize arbitration delays (see sections 0013-0016)

6. Claim 20, 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duckwall (US 6,266,334) in view of Duckwall (US 5,495,481) as applied to claim 18/38 above, and further in view of Hauck et al (US 6,356,558 B1).

For claim 20, 40, Duckwall and Duckwall discloses the claimed invention as described in paragraph 3.

Duckwall and Duckwall are silent about:

For claim 20 and 40, arbitrating for control of the bus is performed by PHY hardware (see column 4 lines 1-4, the PHY can manipulate arbitration line state; see column 3 lines 18-21, the arbitration state machine can be implemented in the PHY).

Hauck from the same or similar field of endeavor discloses a communication network with the following features:

For claim 20 and 40, Hauck et al. teach wherein arbitrating for control of the bus is performed by PHY hardware (see column 4 lines 1-4, the PHY can manipulate arbitration line state; see column 3 lines 18-21, the arbitration state machine can be implemented in the PHY).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Duckwall and Duckwall by using the features, as taught by Hauck, in order to provide improve bus efficiency through the reduction of enforced subaction gaps (see col 2)

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7. Claim 6, 7, 21, 22, 36, 37, 41, 42, 47, 48 rejected under 35 U.S.C. 103(a) as being unpatentable over Duckwall (US 6,266,334) in view of Duckwall (US 5,495,481) as applied to claims 1/18/31/38/73 above, and further in view of Kobayashi et al (US 2003/0179719)

For claim 6, Duckwall and Duckwall discloses the claimed invention as described in paragraph 3.

Duckwall and Duckwall are silent about:

For claim 6, 21, 36, 41, 47 inspecting a first quadlet of a packet to determine a packet type.

For claim 7, 22, 37, 42, 48 the first quadlet contains a transaction code, further comprising: determining from the transaction code that the packet is a stream packet; and determining that transmission is not occurring during an isochronous period .

Kobayashi from the same or similar field of endeavor discloses a communication network with the following features:

For claim 6, 21, 36 , 41, 47 Kobayashi inspecting a first quadlet (see Figure 17 "tcode", tcode is in the first quadlet) of a packet to determine a packet type (see section 0264).

For claim 7, 22, 37, 42, 48 Kobayashi wherein the first quadlet contains a transaction code (see Figure 17 "tcode", tcode is in the first quadlet), further comprising: determining from the transaction code that the packet is a stream packet (see section 0264); and determining that transmission is not occurring during an isochronous period (see section 0264, it is determined transmission is in an asynchronous period, which means it is not in a isochronous period).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Duckwall and Duckwall by using the features, as taught by Kobayashi, in order to provide full compliance with the IEEE 1394 is met. Through the uniform standard devices of different kinds are able to communicate.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Duckwall et al. (US 6,904,044 B2)
- b. Duckwall (US 6,266,334 B1)
- c. Reames, Stephen P. (4,680,755 A)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenan Cehic whose telephone number is (571) 270-3120. The examiner can normally be reached on Monday through Friday 8:00-5:30.

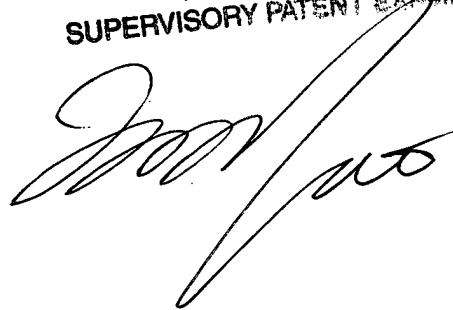
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kwang Yao can be reached on (571) 272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2616

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KC

KWANG BIN YAO
SUPERVISORY PATENT EXAMINER

A handwritten signature in black ink, appearing to read 'Kwong Bin Yao', is written over the printed name and title.